

Technology in Rural Transportation



A recent study documented more than eighty proven, cost-effective, “low-tech” solutions to rural transportation needs, most developed or implemented by local transportation professionals. One of these solutions is outlined below:

Learn all about the simple solutions on the Internet at <http://inform.enterprise.prog.org>

The simple solutions report is available from Hau To at (503) 892-2533, or email: to@crc-corp.com

Rural Coordinate Addressing System

Overall goal:

To improve emergency services and others' ability to locate rural locations through a low-cost addressing system.

Technical approach:

In some rural areas of the United States, streets are not named or identified; potentially creating delays for emergency or delivery services that must visit private residences. This simple solution is to assign every residence to a coordinate mapping system, enabling easy navigation to specific sites. By truncating state plane coordinates to an accuracy of 100 feet, rural locations in Blue Earth County, Minnesota, were assigned unique addresses consisting of two numbers that are compatible with GIS. These addresses aid emergency services and others in locating the site. The state plane coordinates were collected for each driveway outside city limits using portable GPS units and then input into a GIS database. These addresses were related to phone numbers so that when a 9-1-1 call comes in from a rural location, the site appears on a digital map. The database may also be used for creating postal addresses and provided to utilities and delivery companies to help them locate addresses.

Current status:

A pilot project that collected data for one township and created the GIS database has taken place. This demonstrated the coordinate addressing system's potential for locating incident sites. The local County Commissioners have requested that an RFP be developed to determine the cost of collecting data and implementing the system countywide.

Location / geographic scope:

The system can be used in rural counties that do not have traditional addressing and that cannot afford street signs and street naming.



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Agencies involved:

The pilot project was developed by the Blue Earth County Highway Department and performed by a team comprised of the highway department, Minnesota Guidestar, the University of Minnesota and Castle Rock Consultants.

Cost information:

No information is currently available on the projected costs for complete deployment in Blue Earth County. The pilot project, which included developing addressing rules and investigating the compatibility of this system with the National Emergency Number Association (NENA) and the US Postal Service, had a budget of \$10,000.

Key contacts:

Al Forsberg, Blue Earth County Highway Department. (507) 625-3281

Have goals been achieved?

The primary goal of developing a low-cost addressing system has been achieved and tested. The system has not yet been implemented on a large-scale basis.

Solution timeline:

This system is completely deployed and emergency vehicles are being retrofitted with computers equipped with GIS software and GPS capabilities.

